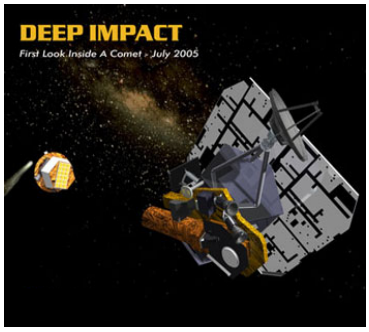

Make a Comet Model and Eat it!
Instructor Page

Created for Deep Impact, A NASA Discovery Mission
Student – Inquiry
Maura Rountree-Brown and Art Hammon

The "Make a Comet and Eat it" activity can be used with a wide age range. Younger students will come away with three important ideas: Comets are cold, they have debris from the early solar system and we still don't know everything about what is in them or how they behave. After this activity, older students will be able to discuss their own theories about what we found out about Comet Tempel 1 when we made a crater inside it in July 2005. They can compare their current theories with our results. Background on the Deep Impact mission can be found on our Science Objectives page. Some of our results can be found on our Mission Results page.

The Activity:

- "Make a Comet and Eat it!" - The activity
- "Make a Comet and Eat it!" - Student Data Sheet - The student work sheet

Background material:

- Consider This - This page shows the history of perceptions about comets.
- A Comet's Place in the Solar System - A little history about where comets came from
- Ten Important Comet Facts - A quick review of comet facts
- C-O-M-E-T-S - A comet acrostic. Good for younger students or comet quick fact reference
- Deep Impact - Interesting Mission Facts - Some fun facts about our mission
- Small Bodies Missions - Learn more about Deep Impact and about other missions to comets and asteroids through their web sites.

Learn more about the chemistry behind this activity (optional)

- The Chemistry of Ice Cream - Learn more about the chemistry of ice cream and how it freezes.
- Building a Butterfat Molecule - Gum drops and toothpicks are all you'll need for this one.

Classroom Management:

A. Materials need to be purchased fresh and kept in store-bought containers. Anything that is used to measure, hold or eat with should never have been used for any classroom or laboratory chemical use.

B. A mop and sponge is very helpful for desks or floor areas where measuring is done. You may choose to pre-load cream bags and salt bags at home unless you would like the students to perform the measurements.

C. The ice needs to be either freshly bought or well frozen in storage. The container for transporting and storing the ice should be pre-cooled if possible or very efficient. If the ice has "warmed", it will be difficult to get the milk/cream to solidify.

D. A list of materials for the activity are found on the Make a Comet and Eat It page.

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